GUSEV, Ye.A.; ZELIKMAN, I.F.

Analysis of the work of sugar refining factories during 1962.
Sakh.prom. 37 no.6:8-13 Je '63.   (MIRA 16:5)

1. Gosudarstvennyy komitet po pishchevoy promyshlennosti pri
Gosplane SSSR (for Gusev). 2. Krasnodarskiy institut pishchevoy
promyshlennosti (for Zelikman).
                              (Sugar factories)

S/169/60/000/006/018/021
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 6, p. 182, # 6774

AUTHOR: Gusev, Ye. B.

TITLE: Observation of a Bright Bolide at Ryasan'

PERIODICAL: Astron. tsirkulyar, 1959, 15 apr., No. 201, p. 22

TEXT: Observations of a bright bolide are described, which appeared in
the Cassiopeia constellation region on March 11, 1959, at $21^h 45^m$ Moscow time.

Translator's note: This is the full translation of the original Russian
                    abstract.

Card 1/1

KURYSHEV, V.I.; GUSEV, Ye.B.; STEPUNINA, V.A.

Bright fireballs over Ryazan. Astron.tsir. no.205:28-29 O '59.
(MIRA 13:6)

1. Pedinstitut, Ryazan' i Ryazanskoye otdeleniye Vsesoyuznogo
astronomo-geodezicheskogo otdeleniya.
(Meteors)

GUSEV, Ye.B.

Observations of fire balls near Ryazan. Astron.tsir. no.215:30
0 '60.   (MIRA 14:3)

1. Ryazanskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo
obshchestva.
                        (Meteros)

KURYSHEV, V.I.; GUSEV, Ye.B.

Observations of bright fireballs in Ryazan in 1960. Astron.tsir.
no.218:19-20 F '61.   (MIRA 14:7)

1. Ryazanskiy pedagogicheskiy institut i Ryazanskoye
otdeleniye Vsesoyuznogo astronomno-geodezicheskogo obshchestva.
                          (Meteors)

KURYSHEV, V.I.; GUSEV, Ye.B.

Observations of lunar occultations of stars in Ryazan in 1960.
Astron.tsir. no.218:21-22 F '61.   (MIRA 14:7)

1. Pedinstitut, Ryazan'.
                          (Occultations)

KURYSHEV, V.I.; SAVOST'YANOVA, T.A.; GUSEV, Ye.B.

Observations of lunar occultations of stars in Ryazan. Astron.-
tsir. no.223:27-29 Jl '61.   (MIRA 15:3)

1. Ryazanskiy pedagogicheskiy institut, Ryazanskoye otdeleniye
Vsesoyuznogo astronomo-geodezicheskogo obshchestva.
(Occultations)

L 22000-65   FSS-2/FSP(b)/FWP(1)/FS(v)-3/ESC(k)-2/EWA(d)/FWG(v)/T/ESD(b)-3   Pu../
Pe-/ Bae-2/Pi-u ...

ACCESSION NR: AR5005111   s/0313/64 '000/007/0006/0006

SOURCE: Ref. zh. Issl. kosm. prostr. Otd. vyp., Abs. 7.62.52

AUTHORS: Gusev, Ye. B.

TITLE: Use of eight-loop oscillograph in photometric observations

CITED SOURCE: Uch. zap. Ryazansk. gos. ped. in-t, no. 35, 1963, 67-69

TOPIC TAGS: artificial earth satellite, satellite observation, photometry,
oscillography

TRANSLATION: The article describes the registration of the brilliance and of the
... of ... of ... with the aid of an MPO-2 eight-loop oscillograph.
... ...

SUB CODE: SV, EC   ENCL: 00

Card 1/1

KURYSHEV, V.I.; GUSEV, Ye.S.; SAVOST'YANOVA, T.A.; GIL'KEN, A.V.

Observations of lunar occultations of stars in Ryazan in 1962. Biul.
Inst.teor.astron. 9 no.8:578 '64.   (MIRA 17:12)

1. Ryazanskiy pedagogicheskiy institut i Ryazanskoye otdeleniye
Vsesoyuznogo astronomo-geodezicheskogo obshchestva.

GUSEV, Ye.D.

Designing string transducers. Priborostroenie no. 4:4-7 Ap '64.
(MIRA 17:5)

GUSEV, Ye.D., inzh.

Calculating some parameters of wire transducers. Priborostroenie
no.4:1-4 Ap '65.   (MIRA 18:5)

ANTUF'YEV, V.M., kand.tekhn.nauk; GUSEV, Ye.K., inzh.

Determining the optimum speeds of a two-way gas flow by the energy
characteristics. Trudy LTITSBP no.11:152-158 '62.   (MIRA 16:10)

MARTIN, V.K.; GUSEV, Yu.K.

Effect of the transverse flow turbulence on the heat transfer
and resistance of pipe bundles with longitudinal and spiral
ribs. Trudy LTITSBP no.14:129-133 '64.

Selecting the surface type for air-cooled oil coolers. Ibid.:145-
150

Heat transfer and resistance of pipe bundles with longitudinal
ribs in a transverse flow. Ibid.:134-144   (MIRA 18:5)

GUSEV, Ye.P.

Investigating the efficiency of long-distance electric transmissions.
Izv. Sib. otd. AN SSSR no.8:6-12 '59.   (MIRA 13:2)

1.Transportno-energeticheskiy institut Sibirskogo otdeleniya AN SSSR.
              (Electric power distribution)

GUSEV, Ye.P.

Studying the efficiency of characteristic resonant transmission systems. Izv.Sib.otd.AN SSSR no.8:46-56 '60.   (MIRA 13:9)

1. Transportno-energeticheskiy institut Sibirskogo otdeleniya AN SSSR.
            (Electric power distribution)

SHCHERBAKOV, V.K.; GUSEV, Ye.P.

Output of electric lines adjusted for halfwave transmission.
Izv. Sib. otd. AN SSSR no. 11:10-21 '60.   (MIRA 14:1)

1. Transportno-energeticheskiy institut Sibirskogo otdeleniya
AN SSSR.
                    (Electric power distribution)

GUSEV, Ye.P.

Study of the efficiency of the characteristic networks of tuned
electric power transmission lines. Trudy Transp.-energ. inst.
Sib. otd. AN SSSR no.11:21-39 '60.   (MIRA 14:6)
(Electric power distribution)

GUSEV, Ye.P.

Efficiency of tuned electric power transmission lines. Trudy Transp. energ. inst. Sib. otd. AN SSSR no.14:12-31 '62.   (MIRA 16:9)
(Electric power distribution)

GUSEV, Ye.P.

Problem concerning the correlation of the efficiency of tuned electric power transmission lines as a means for limiting overvoltages. Trudy Transp.-energ. inst. Sib. otd. AN SSSR no.16: 53-59 '63.

(MIRA 16:11)

L.17084-63   EWP(q)/EWT(m)/BDS   AFFTC/ASD   JD

ACCESSION NR: AP3004593   S/0126/63/016/001/0065/0070

AUTHORS: Gusev, Ye. V.; Lashko, N. F.; Khatsinskaya, I. M.

TITLE: Anomalous electrical resistivity variation in titanium alloys of a transition class

SOURCE: Fizika metallov i metallovedeniye, v. 16, no. 1, 1963, 65-70

TOPIC TAGS: titanium alloy, electrical resistivity

ABSTRACT: The chemical composition and structure of the following titanium alloys were studied: VT1 (commercial titanium); VT5- 3.9% Al; VT6- 5.7% Al and 3.8% V; VT14-1 - 1.9% Al and 6.8% Mo; VT15- 3% Al, 11% Cr and 7% Mo. It was established that the electrical resistivity of α - and $\alpha + \beta$ titanium alloys is determined basically by the relation between the α, α', α'' and β phases formed during heating or cooling. The intraphasal processes and phasal transformations of the alloys were determined according to the variation in their electrical resistivity. The results obtained with heating of samples up to 1000C and a subsequent cooling to room temperature are shown graphically. A decrease in electrical resistivity with the increase in temperature was observed in the alloy VT15 which (after

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L 17084-63

ACCESSION NR: AP3004593

hardening) had the structure of the metastable β-phase. The latter was subse-quently decomposed into $\beta + \alpha$ phases during aging. This anomalous variation in electrical resistivity was explained by the local martensitic transformation of a specific kind and by a partial or a total variation in the nature of chemical bonds. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 07Jun62   DATE ACQ: 27Aug63   ENCL: 00

SUB CODE: ML   NO REF SOV: 001   OTHER: 003

Card   2/2

L 21833-66   EWP(k)/EWT(d)/EWT(m)/EWP(h)/ETC(m)-6/T/EWP(1)/EWP(v)/EWP(t)   JD

ACC NR: AP6004277   SOURCE CODE: UR/0407/65/000/002/0018/0028

AUTHOR: Gularyan, K. K. (Moscow); Gusev, Ye. V. (Moscow)

ORG: none

TITLE: Synthesizing a digital program control system for a precision electric-spark-machining outfit

SOURCE: Elektronnaya obrabotka materialov, no. 2, 1965, 18-28

TOPIC TAGS: spark machining, program control, digital control

ABSTRACT: As the known systems of metal-working-machine program control are inapplicable to spark-machining outfits and as existing program controls for spark machining permit processing only a narrow class of work-pieces, a new system is suggested which permits spark-machining any shape composed from (under 1-mm) straight-line segments. A position-type feedback which uses recorded absolute values of coordinates is adopted in the new system. A punch tape is quickly (0.03– 0.05 sec) fed by a step mechanism and remains at rest during the machining of one step; then it is fed again. Short-time short-circuits are eliminated by a 4-frame

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L 21833-66

ACC NR: AP6004277   /

simultaneous reading of the punch tape; "deep" short-circuits are liquidated by
retracting the punch tape. In synthesizing, the logical net is constructed by applying
digital-automata techniques to a "black box" with a known input and output. The
resulting digital program control permits machining the segmented outlines with an
error of $\pm 3\mu$ and with a surface roughness of $0.8 - 0.4\mu$, and also permits
producing any complex outline with an error of $10 - 20\mu$ and a surface roughness of
$5 - 10\mu$. Minimum electrode diameter, 5μ ; spark-gap voltage, $5 - 10$ v.
Advantages claimed: minimum number of components, maximum reliability, no
error accumulation. Disadvantages: complicated programing of some outlines.
Orig. art. has: 5 figures, 18 formulas, and 2 tables.

SUB CODE: 09, 13 / SUBM DATE: none / ORIG REF: 008

Card 2/2   net

L 45451-65   EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c)   Pad   IJP(c)
ACCESSION NR: AT5011342   UR/0000/65/000/000/0069/0079 MJW/JD/
                                                                       HW/GS

AUTHOR: Gusev, Ye. V.; Lashko, N. F.

TITLE: Study of structural transformations in nickel alloys and steels by
the electrical resistance method

SOURCE: Fazovyy sostav, struktura i svoystva legirovannykh staley i splavov
(Phase composition, structure, and properties of alloy steels and alloys).
Moscow, Izd-vo Mashinostroyeniye, 1965, 69-79

TOPIC TAGS: alloy structure, nickel alloy, refractory alloy, heat resistant
steel, alloy conductivity, steel electrical property, alloy hardness, austeniti-
zation

ABSTRACT: The heat-resistant nickel alloy EI437B, heat-resistant steel EI696,
and steel SH 3 were investigated. The electrical resistance was measured every
20-50C at 10^{-4} mm Hg with a potentiometric device during heating and cooling in
the range of 0 to 1000C. Hardness was also measured. In the case of EI347B,
during heating from 20 to 1000C, the data showed the presence of complex,
undifferentiated processes of formation of the k-state (inhomogeneity of the
solid solution), followed by precipitation of the phase $Ni_3(Al, Ti)$, and its

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L 45451-65
ACCESSION NR: AT5011342 O

dissolution. In the case of EI696, the phase β-Ni$_3$Ti precipitates, particularly
at 750-775C; holding at 800C causes the phase to dissolve. A considerable
hardening of EI696 is observed in the course of aging beginning at 600C. The
formation of the k-state was not detected in SN3. An inflection on the electri-
cal resistance-temperature curve of the aged alloy following normalization and
deep cooling is probably due to the process of austenitization. Orig. art. has:
5 figures.

ASSOCIATION: none

SUBMITTED: 17Dec64   ENCL: 00   SUB CODE: MM, SS

NO REF SOV: 002   OTHER: 003

Card 2/2

GUSEV, Yu., inzh.-podpolkovnik

Useful publication ("New advances in military technology for young readers." Reviewed by IU. Gusev). Voen. znan. 37 no.8:39 Ag '61.   (MIRA 14:7)

(Military art and science)

GUSEV, Yu., inzhener-podpolkovnik

"Return from outer space" by V.A.Parfenov; Reviewed by IU.Gusev.
Starsh.-serezh. no.12:40 D '61.   (MIRA 15:3)
            (Space vehicles—Atmospheric entry)
                (Parfenov, V.A.)

GUSEV, Yu.

Transit should be expedient. Sov. torg. 37 no.11:12-15 N '63.
(MIRA 16:12)

1. Nachal'nik planovogo otdela Ivanovskoy vykhodnoy bazy Rostekstil'torga.

GUSEV, Yu. D.:

Gusev, Yu. D.: "Timber and scrub exotic growth in the Moldavian
SSR and in the Trans-Dnepr portion of Odessa Oblast,"
Acad Sci USSR. Botanical Inst imeni V. L. Komarov. Len-
ingrad, 1956. (Dissertation for the Degree of Candidate
in Biological Science)

SO: Knishnaya letopis', No 27, 1956. Moscow. Pages 94-109; 111.

GUSEV, Yu.D.

Trees and shrubs in gardens and parks of the Moldavian S.S.R. and
the trans-Dniester region of Odessa Province. Trudy Bot. inst.
Ser. 6:82-148 '58.   (MIRA 11:10)
    (Russia, Southern--Trees)   (Russia, Southern--Shrubs)

GUSEV, Yu.D.; IKONNIKOV, S.S.

Botanical explorations in the region of Lake Sarez (eastern
Badakhshan). Bot. zhur. 44 no.3:400-402 Mr '59.

(MIRA 12:7)

1.Botanicheskiy institut im. V.L. Komarova AN SSSR i Pamirskaya
biologicheskaya stantsiya AN Tadzhikoy SSR.
(Sarez region--Botany)

GUSEV, Yu.D. (Leningrad)

Upper limit of trees and shrubs in the Gorno-Badakhshan Autono-
mous Province. Bot.zhur. 44 no.8:1158-1162 Ag '59.
(MIRA 13:2)

(Sarez Region--Timber line)

GUSEV, Yu.D.; SIDOROV, L.F.

Ecology of Populus pamirica Kom. at the upper limits of its
range. Bot.zhur. 45 no.3:444-445 Mr '60. (MIRA 13:6)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR,
Leningrad i Pamirskava biologicheskaya stantsiya Tadzhikskoy
SSR,,pos..Chechekty..
                    (Sarez region--Poplar)

ARTYUSHENKO, Z.T.; GUSEV, Yu.D., kand.biolog.nauk; ZAYTSEV, G.N.;
        ZAMYATNIN, B.N.; KNORRING-NEUSTRUYEVA, O.E.; PIDOTTI, O.A.;
        PILIPENKO, F.S.; POLYAKOV, P.P.; RODIONENKO, G.I.;
        SALIVANOVA-GORODKOVA, Ye.A.; SOKOLOV, S.Ya., prof., doktor
        biolog.nauk; SMIRNOVA, A.V., tekhn.red.

        [Trees and shrubs of the U.S.S.R.; wild and cultivated, and the
        prospects for introduction] Derev'ia i kustarniki SSSR;
        dikorastushchie, kul'tiviruemye i perspektivnye dlia introduktsii.
        Moskva, Izd-vo Akad.nauk. Vol.6. [Angiosperms: Loganceae-Compositae]
        Pokrytosemennye semeistva, Loganievye - Slozhnotsvetnye. 1962.
        378 p.   (MIRA 15:5)
        1. Akademiya nauk SSSR. Botanicheskiy institut.
                (Trees)   (Shrubs)

GUSEV, Yu.D.

Herbaceous cover in the flood plain forests of the central part of
the Gorno-Badakhshan Autonomous Province. Bot.zhur. 47 no.3:388-
393 Mr '62.   (MIRA 15:3)

1. Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.
   (Gorno-Badakhshan Autonomous Province--Forests and forestry)
                            (Grasses)

GUSEV, Yu.L.

Naturalization of American plants in the Gulf of Finland basin.
Bot. zhur. 49 no.9:1262-1271 S '64.   (MIRA 17:12)

1. Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad.

AP4010296   S/0048/64/028/001/0080/0087

AUTHOR: Berlovich, E.Ye.; Gusev, Yu.K.; Khay, D.M.; Shenaykh, I.

TITLE: Lifetimes of levels of W^{182}, Pr^{144} and Eu^{151} /Report, Thirteenth Annual Conference on Nuclear Spectroscopy held in Kiev, 25 Jan to 2 Feb 1963/

SOURCE: AN SSSR. Izvestiya, Seriya fizicheskaya, v.28, no.1, 1964, 80-87

TOPIC TAGS: level lifetime, γ-transition, quadrupole moment, multipole order, retardation factor, speed up factor, tungsten 192, praseodymium 144, europium 151

ABSTRACT: The paper gives the results of determining the lifetimes of the 100.1 and 1289.7 keV states of W^{182}, the 100 keV state of Pr^{144} and the 21.7 keV state of Eu^{151}. The Ta^{182} and Ce^{144} sources for investigating the lifetimes of the W^{182} and Pr^{144} levels were obtained by the (n,γ) reaction using neutrons from the pile of the imeni A.F.Ioffe Physical-Technical Institute, while the Gd^{151} source (for studying Eu^{151}) was obtained by spallation of a tantalum target with 660 MeV protons from the synchrocyclotron of the OIYaI (Joint Institute for Nuclear Research). The experimental procedures, which were based on measuring $\beta-\gamma$ and β-conversion electron coincidences are described for each isotope. The lifetime values obtained for

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the investigated levels are the following: W^{182} 100.1 keV $T = (1.4 \pm 0.1) \times 10^{-9}$ sec; W^{182} 1289.7 keV $T = (1.05 \pm 0.05) \times 10^{-9}$ sec; Pr^{144} 99.95 keV state $T = (0.95 \pm 0.08) \times 10^{-9}$ sec; Eu^{151} 21.7 keV $T = (7.2 \pm 0.7) \times 10^{-9}$ sec. The value of the quadrupole moment of the ground state of W^{182}, calculated on the basis of the life-time of the first excited state, $Q_0 = 6.4$ barns, which is significantly less than the value obtained by averaging the results of Coulomb excitation experiments: $Q_0 = 6.75$ barns. In view of this there were analyzed the analogous data for other even-even nuclei at the border of the region of deformation (from Hf^{176} to Os^{190}). It was found that there is a consistent divergence between the quadrupole moments obtained on the basis of the lifetime measurements and Coulomb excitation measurements (An exception is Hf^{176} for which the two values agree.) The data on the other investigated transitions are discussed with a view to evaluating their multipole orders and retardation or speeding up factors. Some analogies are drawn with transitions in other nuclei located at the boundary of the region of deformed nuclei. Orig. art.has: 2 tables and 5 figures.

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Card

AP4010296

ASSOCIATION: Fiziko-tekhnicheskiy institut im.A.F.Ioffe, Akademii nauk SSSR
(Physical-Technical Institute, Academy of Sciences, SSSR)

SUBMITTED: 00   DATE ACQ: 10Feb64   ENCL: 00

SUB CODE: NS   NR REF SOV: 009   OTHER: 013

3/3
Card

20650

S/186/60/002/005/003/017
A051/A130

21.3100

AUTHORS: Vdovenko, V. M.; Krivokhatskiy, A. S.; Gusev, Yu. K.

TITLE: The extraction of various metal nitrates with mixed solvents

PERIODICAL: Radiokhimiya, v. 2, no. 5, 1960, 531 - 536

TEXT: The present article offers the results obtained in a study
of the extraction of micro-quantities of metal nitrates of various valency:
cerium, zirconium, niobium and ruthenium. The study was carried out on
the extraction of trivalent cerium nitrates, and the other metal nitrates
using mixtures of simple oxygen-containing solvents, and on the phenomenon
of non-addivity, i.e., the extraction of the nitrates exceeding that of
the computed value of extraction, estimated from the assumption of inde-
pendence of the extraction by each component of the mixture with respect
to the presence of the other. The following preparations were used in the
experiments: Ce^{144}, Zr^{95}, Nb^{95}, Ru^{106}, of the "non-carrier" grading. Two
mixtures were used as the extracting agents, which were extreme with re-
spect to the extraction of the nitric acid and uranyl nitrate, i.e., ex-

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The extraction of various metal .....

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S/186/60/002/005/003/017
A051/A130

tracting these better than pure solvents individually, dibutyl ether-$\beta\beta'$-
-dichlorodiethyl ether, (chlorex) and diethyl ether-acetophenone. Figures
1 - 7   show the results of the experiments, indicating that the investi-
gated mixtures are really non-additive with respect to the extraction of
all the mentioned elements, and the values of deviation from the additivity
become rather high. The extremeness, however, is only present for the
solvent mixtures which extract the given nitrate in the pure form, to about
an equal extent. The data showed that the non-addivity (formation of mixed
solvates) is characteristic not only for the extraction of the given ele-
ment by the mixtures of various oxygen-containing solvents (Ref. 1: V. M.
Vdovenko, A. S. Krivokhatskiy, ZhNKh, 5, 494, 1960), but also for the ex-
tracting of various elements by one mixture, proving the generality of the
phenomenon. The possibility of increasing the degree of separation of the
elements by selection of the corresponding composition of the extracting
agent, as a result of the difference in the shapes of the curves of extrac-
tion of the various elements is shown. There are 1 table and 7 figures,
3 references: 2 Soviet-bloc, 1 non-Soviet-bloc, The English language pub-
lication reads as follows: (Ref. 2) H. A. C. McKay, Chemistry a. Industry,
51, 154, 1954.

Card 2/ 9

BERLOVICH, E.Ye.; BONITS, M.P.; GUSEV, Yu.K.; NIKITIN, M.K.

Probabilities of one-particle transitions in Yb^{173} nuclei. Izv.AN
SSSR.Ser.fiz. 25 no.10:1275-1279 O '61.   (MIRA 14:10)

1. Fiziko-tekhnicheskiy institut im. A.F.Ioffe Akademii nauk SSSR.
        (Quantum theory)   (Ytterbium)

S/048/62/026/002/010/032
B101/B102

AUTHORS: Berlovich, E. Ye., Gusev, Yu. K., Il'in, V. V.,
              Nikitin, V. V., and Nikitin, M. K.

TITLE: Probabilities of transitions between the lower levels of the
              Sm^{147} nucleus

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
              v. 26, no. 2, 1962, 221 - 226

TEXT: In order to clarify the quantum characteristics of the lower
levels of Sm^{147}, the lifetimes of 121- and 198-kev excited states were
measured with the multichannel time analyzer described in Ref. 5 (see
below). The source was Eu^{147} ($T_{1/2}$ = 24 days) which was obtained by
chromatographic separation from a tantalum target bombarded with 660-Mev
protons in the synchrocyclotron of the OIYaI. Eu^{147} was separated
chromatographically after the 35-hr Gd^{147} had decayed. A study was made
of the coincidence between the 676-kev gamma quanta, the emission of

Card 1/?   3

Probabilities of transitions....

which excites the 121-kev level, with the gamma quanta resulting from the discharge of this level. The gamma spectrum of Eu^{147} was recorded by means of NaI(Tl) crystals and an ФЭУ-33 (FEU-33) photomultiplier. The gamma-gamma coincidences of Eu^{147} and a comparison with the gamma-gamma coincidences of the Co^{60} reference source ($Co^{60} \longrightarrow Ni^{60}$) transition were used to calculate the lifetime of the 121-kev level:

$T_{1/2} = (3.3 \pm 0.3) \cdot 10^{-10}$ sec. The coincidence of 600-kev gamma quanta with the conversion electrons of the 198-kev transition was examined at the 198-kev level. The gamma quanta were recorded by means of a stilbene crystal. The right-hand branch of the coincidence curve had a pronounced exponential course. It was found that $T_{1/2} = (1.31 \pm 0.05) \cdot 10^{-9}$ sec. These results can be brought into agreement with the sequence 7/2, 5/2, 3/2, for the ground state and for the first two excited states. Since the 198-kev transition is a pure E2 transition which excludes the sequence $f_{7/2}$, $h_{9/2}$, $f_{5/2}$, there must be a prohibition which suppresses

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Probabilities of transitions...

S/048/62/026/002/010/032
B101/B102

the M1 component. The results exclude a lifetime of the 121-kev state
in the microsecond range. There are 5 figures and 12 references:
10 Soviet and 2 non-Soviet. The two references to English-language publica-
tions read as follows: Ref. 5: Bonitz, M., Berlovich, E., Nucl. Instr.
and Methods, 9, 13 (1961); Bay, Z., Phys. Rev., 77, 419 (1950).

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk
             SSSR (Physicotechnical Institute imeni A. F. Ioffe of the
             Academy of Sciences USSR)

Card 3/1

NEFEDOV, V.D.; KHARITONOV, N.P.; LI DE-FU [Li Tieh-fu]; GUSEV, Yu.K.;
          SKOROBOGATOV, G.A.; SMIRNO-AVERIN, A.P.; SEVAST'YANOV, Yu.G.;
          KHUDOBIN, Yu.I.

Tritiation of organosilicon compounds by the method of rebounding
tritium atoms. Zhur.ob.khim. 32 no.2:614-618 F '62.   (MIRA 15:2)

1. Institut khimii silikatov AN SSSR i Leningradskiy
gosudarstvennyy universitet.
                    (Silicon organic compounds)
                          (Tritium)

S/056/62/042/004/007/037
B102/B104

AUTHORS: Berlovich, E. Ye., Gusev, Yu. K., Il'in, V. V., Nikitin,
V. V., Nikitin, M. K.

TITLE: Contribution of collective motion to the lifting of the
1-forbiddance

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 4, 1962, 967-972

TEXT: Continuing earlier studies (DAN SSSR, 133, 789, 1960; Nucl. Phys.
23, 481, 1961), the authors determined the lifetimes of the M1 transitions
of the type $g_{7/2} \to d_{5/2}$ for the spherical nuclei $Eu^{147,149,151}$ just before
the range of great deformations, where the collective motion is strongest.
It can be assumed that collective motion affects the probability of
1-forbidden transitions if the number of neutrons is below the critical
(N = 89) and the nucleus is still spherical. The experiments were made
with Gd fractions of Ta targets irradiated with 660-Mev protons in the
synchrocyclotron of the OIYaI, a multi-channel time analyzer, a
scintillation spectrometer with NaI-crystal and an ФЭУ-33 (FEU-33)
Card 1/2

Contribution of collective ...

S/056/62/042/004/007/037
B102/B104

multiplier. Results: Eu^{147}, first excited level 229.5 kev $(g_{7/2})$, lifetime $(1.8 \pm 0.2) \cdot 10^{-10}$ sec; M1 transition to ground state $(d_{5/2})$, delay factor F = 115; total internal-conversion coefficient α = 0.195. Eu^{149}, first excited level 150 kev $(g_{7/2})$, lifetime $(3.2 \pm 0.2) \cdot 10^{-10}$ sec; M1 transition to the ground state $(d_{5/2})$, F = 78; α = 0.63. Eu^{151}, first excited level 21.7 kev $(g_{7/2})$, lifetime $(3.4 \pm 0.2) \cdot 10^{-9}$ sec; M1 transition to ground state $(d_{5/2})$, F = 47; α = 29.1. The low values of the F-factors and their smooth decrease when approaching the range of deformed nuclei, in the nuclear range considered, indicate an increasing contribution of collective motion in the real nuclear wave functions, leading to progressive weakening of the l-forbiddance. There are 4 figures and 1 table.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR)

SUBMITTED: November 11, 1961

Card 2/2

S/056/62/043/005/010/058
B102/B104

AUTHORS: Berlovich, E. Ye., Gusev, Yu. K., Il'in, V. V.,
             Nikitin, M. K.

TITLE: Lifetimes of the excited states of deformed Dy^{160}, Lu^{175}, Hf^{177}, and Ir^{191} nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
             no. 5(11), 1962, 1625-1635

TEXT: A time - pulse-height converter and a differential time analyzer
with variable delay line were used to study the lifetimes of some excited
states of deformed nuclei. For Dy^{160} the decay curves of

$$Er^{160} \xrightarrow[\varepsilon]{3C \text{ hr}} Ho^{160} \xrightarrow[\beta^+,\varepsilon]{5 \text{ hr}} Dy^{160}$$
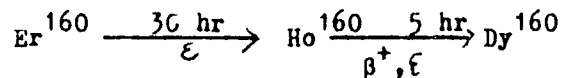
were used to calculate the lifetimes of the first excited states by the
method of least squares. Results:

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Lifetimes of the excited states of ...

S/056/62/043/005/010/058
B102/B104

86.5 kev (2^+) : $T_{1/2}$ = $(1.7\pm0.1)\cdot10^{-9}$ sec; E2 transition to ground state(0^+);

283 kev (4^+) : $T_{1/2}$ = $(7.1 \pm 0.9)\cdot10^{-11}$ sec; E2 transition to first level;

966 kev (2^+) : $T_{1/2}$ $\leqslant$ $7\cdot10^{-12}$ sec; E2 transition to the ground state.

The lifetimes of the first and third excited states of Hf^{177} were determined from the β^- decay of Lu^{177} (6.8 d). Results:

113 kev $(9/2^-)$:$T_{1/2}$=$(4.2\pm0.3)\cdot10^{-10}$sec; transition to ground state $(7/2^-)$

321 kev$(9/2^+)$:$T_{1/2}$ =$(6.9\pm0.3)\cdot10^{-10}$sec; transitions to ground state, first, and second (250 kev, $11/2^-$) excited states. The lifetimes of the first and third excited states of Lu^{175} were determined from the β^- decay of Yb^{175}(6.8 d). Results:

114 kev$(9/2^+)$: $T_{1/2}$=$(1.1\pm0.1)\cdot10^{-10}$sec; (M1+E2) transition to ground state

396 kev$(9/2^-)$: $T_{1/2}$=$(3.25\pm0.10)\cdot10^{-9}$sec; (E1+M2) transitions to ground

Card 2/5

Lifetimes of the excited states of ...

S/056/62/043/005/010/058
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state $(3/2^+)$ and to the first excited level and E1 transition to the second level (251.5 kev, $11/2^+$). The lifetime of the first excited level of Ir^{191}, 129.6 kev $(5/2^+)$, was determined in β-decay of Os^{191} (15 d), and found to equal $(8.1 \pm 1.6) \cdot 10^{-11}$ sec. This value agrees with data from the Mössbauer effect. The results are compared with the predictions of the generalized nuclear model of Bohr-Mottelson and some nuclear parameters are calculated. For the internal quadrupole moment of the band, calculated from the lifetimes of the first and second rotational level of Dy^{160}, the values $(8.0 \pm 0.5) \cdot 10^{-24} cm^2$ and $(8.5 \pm 1.1) \cdot 10^{-24} cm^2$ were obtained which agree within the error limits. $B(E2; 4 \to 2)/B(E2; 2 \to 0) = 1.68 \pm 0.17$. The empirical transition probabilities for the Hf^{177} levels being

$$W_{\gamma 321} = 2{,}6 \cdot 10^7 \, cek^{-1}, \qquad W_{\gamma 208} = 8{,}5 \cdot 10^8 \, cek^{-1}, \qquad W_{\gamma 72} = 5{,}7 \cdot 10^7 \, cek^{-1}.$$

Card 3/5

S/056/62/043/005/010/058
B102/B104

and the theoretical values calculated with Nilssons formula (Kgl. Danske Vid. Selskab. Mat.-Fys. Medd., 29, 16, 1955) being

$$W_{H321} = 1{,}67 \cdot 10^{10}, \qquad W_{H208} = 1{,}04 \cdot 10^{9}, \qquad W_{H72} = 1{,}15 \cdot 10^{7}.$$

the retardation factors are obtained as

$$f_{H321} = 650, \qquad f_{H208} = 1{,}13, \qquad f_{H72} = 1{,}54.$$

The corresponding quantities for Lu^{175} are

$$W_{\gamma 316} = 1{,}2 \cdot 10^{8}, \qquad W_{\gamma 208} = 5{,}7 \cdot 10^{9}, \qquad W_{\gamma 145} = 8 \cdot 10^{6},$$

$$W_{H316} = 1{,}18 \cdot 10^{10}, \qquad W_{H282} = 9{,}76 \cdot 10^{8}, \qquad W_{H145} = 1{,}32 \cdot 10^{7}.$$

$$f_{H316} = 105, \qquad f_{H282} = 17, \qquad f_{H145} = 1{,}6.$$

The table gives among others the g-factors of collective (g_R) and internal (g_K) motion, and μ in nuclear magnetons. There are 9 figures and 1 table.

Card 4/5

Lifetimes of the excited states of ...   S/056/62/043/005/010/058
                                             B102/B104

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii
               nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of
               the Academy of Sciences USSR)

SUBMITTED: June 9, 1962

	E_γ, keV	$\delta^2 = \dfrac{E2}{M1}$	Q_0, 10^{-24} cm^2	μ. я. м.	$B(M1)$, $(e\hbar/2Mc)^2$	ξ_R	ξ_K	
Hf^{177}	113	34	7,76	+0,61	$5,2\cdot10^{-4}$	0,20	+0,17	Table
Lu^{175}	113,83	0,25	7,45	+2,0	$6,67\cdot10^{-2}$	0,20	+0,65	
Ir^{191}	129,6	0,14	4,25	+0,17	$4,8\cdot10^{-2}$	0,46	—0,12	

Card 5/5

NEFEDOV, V.D.; SKOROBOGATOV, G.A.; NOVAK, K.; PLUCHENNIK, G.; GUSEV, Yu.K.

Use of a double tag for detecting glycine formed from
Omethylene-C^{14}) succinic acid as a result of carbon-14 -decay.
Zhur.ob.khim. 33 no.2:339-342 F '63.   (MIRA 16:2)

1. Leningradskiy gosudarstvennyy universitet.
   (Glycine)   (Succinic acid)   (Carbon isotopes--Decay)

MURIN. A.N.; NEFEDOV, V.D.; KIRIN, I.S.; GRACHEV, S.A.; GUSEV, Yu.K.; SAYKOV, Yu.P.

Formation of oxygen compounds of xenon during the β-decay of ^{131}I in potassium periodate. Radiokhimiia 7 no.5:631-632 '65.

(MIRA 18:10)

MURIN, A.N.; NEFEDOV, V.D.; KIRIN, I.S.; GRACHEV, S.A.; GUSEV, Yu.K.;
SHAPKIN, G.N.

Beta decay of bromine isotopes as a possible method of
synthesizing krypton compounds. Zhur.ob.khim. 35 no.12:2137-
2140 D '65.   (MIRA 19:1)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR.
Submitted February 25, 1965.

MOSEVICH, A.N.; KUZNETSOV, N.P.; GUSEV, Yu.K.

Chromatographic separation of some oxygen compounds of xenon
and iodine. Radiokhimiia 7 no.6:678-687 '65.

(MIRA 19:1)

KIRIN, I.S.; GUSEV, Yu.K.; MOSEVICH, A.N.; KUZNETSOV, N.P.;
    GUSEL'NIKOV, V.S.

Separation of XeO_3 and HIO_3 on zirconium phosphate. Radiokhimiia 7
no.6:736-738 '65.   (MIRA 19:1)

L 17371-66   EWT(m)/EWP(t)   DIAAP/IJP(c)   JD
ACC NR: AP6004509   SOURCE CODE: UR/0185/65/007/005/0631/0632

AUTHOR: Murin, A. N.; Nefedov, V. D.; Kirin, I. S.; Grachev, S. A.; Gusev, Yu. K.;
Saykov, Yu. P.

ORG: none

TITLE: Formation of oxygen-xenon compounds during β-radiation of I^{133} incorporated in potassium periodide

SOURCE: Radiokhimiya, v. 7, no. 5, 1965, 631-632

TOPIC TAGS: xenon, oxide formation, beta radiation, iodine, radioisotope

ABSTRACT: Xenon oxides (XeO_4 and XEO_3) were prepared by β-radiation of potassium periodide containing radioactive J^{133} isotope according to the following scheme:

$$[^{133}JO_4]^{1-} \xrightarrow{\beta} [^{133}XeO_4]^* \nearrow ^{133}XeO_3 \searrow ^{133}XeO_4$$
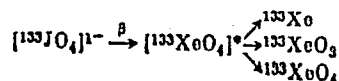
The preparation procedure was as follows: helium gas was bubbled for 30 minutes at

UDC: 541.28 : 546.295

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L 17371-66
ACC NR: AP6004509

a rate of 26 ml/min through a solution of $KJ^{133}O_4$ and KJ^{133} in 0.002 normal H_2SO_4 to remove free xenon. The elemental iodine was removed from the gas stream by passing helium through a KOH-absorber. The xenon oxides were trapped on AG-5 activated carbon at liquid nitrogen temperature. The quantity of trapped xenon-133 was measured using an AI-100-1 analyzer. It was found that XeO_4 is unstable in acidic media and decomposes to XeO_3. /Editor's note: J is the Russian periodic symbol for iodine./

SUB CODE: 07/   SUBM DATE: 08Jan65/   ORIG REF: 002/   OTH REF: 005

Card 2/2 nst

MURIN, A.N.; KIRIN, I.S.; NEFEDOV, V.D.; GRACHEV, S.A.; GUSEV, Yu.K.

Chemical changes in the β-decay of iodine isotopes as a method of synthesizing xenon compounds. Dokl. AN SSSR 161 no.3:611-613 Mr '65.   (MIRA 18:4)

1. Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR. Submitted September 21, 1964.

GUSEV, YU. L.

Osnovy proektirovaniia kotel'nykh ustanovok. Moskva, Gos. izd-vo stroit. lit-ry, 1950.
155 p. diagrs.

Bibliography: p. (154)

Fundamentals of boiler-plant design.

DLC: TJ290. G8

SO: Manufacturing and Mechanical Engineerin; in the Soviet Union, Library of
Congress, 1953

GUSEV, Yu.L.

[Fundamentals of design of steam boiler installations] Osnovy proektirovaniia
kotel'nykh ustanovok. Izd. 2., perer. i dop. Moskva, Gos. izd-vo lit-ry po
stroitel'stvu i arkhitekture, 1952. 239 p.   (MLRA 6:8)
                                          (Steam boilers--Design)

KOP'EV, S. F., Prof.; GUREV, Yu.L.; MYABISHEV, I.S.

Heating from Central Stations - Moscow

Rational systems for district heat supply of the city.   Gor. khoz. Mosk. 26 no. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952.   Unclassified.

GUSEV, Yu.L.

SOKOLINSKAYA, L.B., inzhener, nauchnyy redaktor; GUSEV, Yu.L., redaktor izdatel'stva; TOKER, A.M., tekhnicheskiy redaktor.

[Lowering the cost of water pipe and sewer] Snizhenie stoimosti vodoprovodnykh i kanalizatsionnykh soorushenii. [Nauch. redaktor L.B.Sokolinskaia] Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 54 p.   (MLRA 7:8)

1. Moscow. TSentral'nyy institut informatsii po stroitel'stvu.
   (Water pipes) (Sewerage)

SOKOLINSKAYA, L.B., inzhener, nauchnyy redaktor; GUSEV, Yu.L., redaktor izdatel'stva; TOKER, A.M., tekhnicheskiy redaktor.

[New research and projected solutions in the realm of water supply] Novye issledovaniia i proektnye resheniia v oblasti vodosnabzheniia. Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1954. 46 p.

(MIRA 7:9)

1. Moscow. TSentral'nyy institut informatsii po stroitel'stvu.
   (Water--Purification) (Water-supply engineering)

(Gusev, Yu. L.

TILIN, Lev Aronovich; kandidat tekhnicheskikh nauk, dotsent; LIVCHAK,
I.F., dotsent, kandidat tekhnicheskikh nauk, redaktor; GUSEV,
Yu.L., redaktor; TOKER, A.M., tekhnicheskiy redaktor.

[Hot air radiant heating; methods for calculation] Luchistoe
otoplenie nagretym vozdukhom; metodika rashcheta. Moskva, Gos.
izd-vo lit-ry po stroit. i arkhitekture, 1955. 154 p.(MLRA 8:11)
      (Radiant heating)

GUSEV, Yu. N.

ANDREYEV, Petr Ivanovich; BATURIN, V.V., kandidat tekhnicheskikh nauk, redaktor;GUSEV, Yu.L., redaktor; MEDVEDEV, L.Ya., tekhnicheskiy redaktor

[Distribution of heat and moisture in factory buildings] Rasprostranenie tepla i vlagi v tsekhakh promyshlennykh predpriiatii. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1955. 157 p.
        (Factories--Heating and ventilation)   (MIRA 8:4)

GUSEV, YU.L.

SMEKALIN, Ivan Vasil'yevich, dotsent [deceased]; SHORIN, S.N., professor, doktor .ekhnicheskikh nauk, retsenzent; BYLINKIN, I., dotsent, nauchnyy redaktor; GUSEV, Yu.L., redaktor; MEDVEDEV, K.Ya., tekhnicheskiy redaktor

[Gas supply] Gazosnabzhenie. Moskva, Gos. izd-vo lit-ry po stroit. i arkhit. Pt.1. [Production of gas and its technological properties] Proizvodstvo gaza i ego tekhnologicheskie svoistva. 1955. 223 p.
        (Gas manufacture and works)   (MLRA 8:3)

GUSEV, Yu. L.

SEMENOV, Leonid Alekseyevich, professor, doktor tekhnicheskikh nauk;
BRENNER,R.N., dotsent, kandidat tekhnicheskikh nauk, redaktor
[deceased]; GUSEV,Yu.L., kand.tekhn.nauk, red.; VOLKOV,V.S.,tekhn.red.

[Stove heating] Pechnoe otoplenie. Moskva, Gos.izd-vo lit-ry
po stroit. i arkhitekture, 1955. 243 p.   (MIRA 9:3)
                    (Stoves) (Heating)

GUSEV, Yu.L.

Methods for testing cast-iron water heaters. Vod. i san. tekh. no.3:
21-25 Mr '58.   (MIRA 11:3)
                              (Water heaters--Testing)

DZHAMALOV, O.B., doktor ekon. nauk; GUSEV, Yuriy L'vovich, dots.,
kand. tekhn. nauk; KOP'YEV, Sergey Fedotovich, prof., doktor
tekhn. nauk; ALEKSANDROVICH, Yu.B.,retsenzent; FEDOROV, M.N.,
starshiy inzh., retsenzent; OSENKO, L.M., red. izd-va; RODIONOVA,
V.M., tekhn. red.

[Boiler systems and thermal networks]Kotel'nye ustanovki i tep-
lovye seti. Moskva, Gosstroiizdat, 1962. 310 p. (MIRA 16:1)

1. Gosudarstvennyy komitet Soveta Ministrov SSSR po delam
stroitel'stva (for Aleksandrovich). 2. Nauchno-issledovatel'-
skiy institut sanitarnoy tekhniki Akademii stroitel'stva i ar-
khitektury SSSR (for Fedorov).
(Boilers) (Heating from central stations)

ELSEV, Yu.I.

Method for interpreting asymmetrical ΔT anomalies. Geol. i geofiz.
no. 4:90-99 '60.   (MIRA 14:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN
SSSR.
            (Magnetic prospecting)

S/210/62/000/006/001/001
1004/1250

AUTHORS: M. G. Serbulenko, M. G. and Gusev, Yu. M.

TITLE: Photoformer differentiator and its use for interpretation of geophysical data

PERIODICAL: Geologia i geofizika, no. 6, 1962, 104-109

TEXT: A simple device is described for differentiation of functions given in form of graphs, which shows gradients of functions, independently of their physical meaning. The device is intended for processing the data of an aeromagnetic survey. The electronic circuit of the device consists of a function generator with an output voltage proportional to the input curve and of a differentiating unit together with a zero marking circuit. Calibration of the device and a check of differentiation linearity are carried out by introducing a mask, with its edge cut in the shape of a sawtooth curve. To correlate the graph with a map several narrow cuts are made on the curve. The time necessary for processing one 150 km long profile in the 1 : 200,000 scale takes 5 to 8 minutes. The accuracy of the values of the derivatives obtained is $\pm$ 5%. The device was used for processing the geological data from Aleksandrovskii swell. Maps of the distribution of magnetic field ΔT_a were thus supplemented with the maps of gradients ΔT_s, to be compared with the graphical representation of the structure of the area. The iso-curves of ΔT_s help in the analysis of the data and make possible a more thorough interpretation of the structural and tectonic character of areas covered by thick sedimentary layer. There are 7 figures and 4 references.

Card 1/2

Photoformer differentiator...

S/210/62/000/006/001/001
1004/1250

ASSOICATION: Institut geologii i geofiziyki Sibirskogo otdeleniya AS USSR, Novosibirsk (Institute of Geology and Geophysics of the Siberian branch of Academy of Sciences of USSR)

SUBMITTED: November 17, 1961

Card 2/2

ACCESSION NR: AT4044074   S/2994/63/000/021/0022/0075

AUTHOR: Karatayev, G. I., Serbulenko, M. G., Gusev, Yu. M., Kolmogorova, P. P., Luk'yanova, N. N., Puchkov, Ye. P., Sary*cheva, Yu. K.

TITLE: Solving some of the problems of geophysical prospecting on electronic computers

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut geologii i geofiziki. Trudy*, no. 21, 1963, Geofizicheskiy sbornik. no. 4: Primeneniye elektronny*kh tsifrovy*kh mashin pri reshenii nekotory*kh zadach geofiziki (Geophysical papers, no. 4: Using electronic computers in solving some geophysical problems), 22-75

TOPIC TAGS: geophysical prospecting, computer programming, gravity, magnetic field, magnetic prospecting

ABSTRACT: When computers are used, more realistic assumptions may be made to replace the idealized formulations which give inadequate interpretations of geophysical anomalies. In the present paper, a classification is given of the main problems of geophysical interpretation. Examples of computer application to geophysical problems include: 1. transformation of the observed anomalous field into the upper half-space; 2. calculation of the field in the lower half-space; 3. computing of vertical and horizontal

Card 1/4

ACCESSION NR: AT4044074

derivatives of various orders from observed anomalies; 4. distinguishing components which reflect geological structure in the study of crystal structure; and 5. constructing contact surfaces and determining the elements of perturbing masses. The authors then deal with calculation of the improper integrals encountered in geophysical interpretation and estimate the errors resulting, using model fields for specific cases. Recommended formulas are given for two and three-dimensional problems. Integral representation of anomalous potential fields is then treated, and formulas are derived and tabulated for computing the coefficients of the cubature formula and the quadratic sum. Detailed instructions are given for construction of tangential gravitating planes, correction for the effects of local relief, and the preparation of structural and topographic maps for computer processing. The following computer programs are listed: 1. evaluating anomalous fields in the lower and upper half-space; 2. computing vertical gradients of various orders; 3. calculating horizontal derivatives of any other; 4. calculating functions orthogonal to observed functions and values of regional anomalies; 6. filtering errors in observations; 7. solution of the direct problem of gravitational prospecting for the case of one or several tangential gravitating surfaces; 8. obtaining constants of contact

Card 2/4

ACCESSION NR: AT4044074

surfaces; 9. determining lodes and the physical nature of perturbations; 11. averaging anomalous fields; 12. evaluating errors in relief. Brief descriptions are given of programs for solving the quadrature and cubature formulas, a subroutine for formulating true addresses on the grid, and a program for calculating the correlation functions for several paths traced out in a field. The theoretical predictions were confirmed. Most of the computer time was spent on reading in and punching out data. This work makes it possible to solve complex problems relating to the correlation of morphologies of geophysical fields of different origin. "Acknowledgements are given to E. E. Fotiadi, corresponding member of the SSSR Academy of Sciences, and to Prof. A. I. Zaborovskiy, R. F. Volodarskiy and T. I. Landa of MGU (Moscow State University), as well as to the Vy*chislitel'ny*y tsentr SO AN SSSR(Computer Center, Siberian Division, SSSR Academy of Sciences). Orig. art. has: 3 tables, 7 figures and 145 formulas.

ASSOCIATION: Institut geologii i geofiziki, Sibirskoye otdeleniye, Akademiya Nauk SSSR (Institute of Geology and Geophysics, Siberian Division, SSSR Academy of Sciences)

Card 3/4

KARATAYEV, G.I.; SERBULENKO, M.G.; GUSEV, Yu.M.; KOLMOGOROVA, P.P.;
    LUK'YANOVA, N.N.; PUCHKOV, Ye.P.; SARYCHEVA, Yu.K.

Solution of some problems in gravity and magnetic prospecting
by means of computers. Trudy Inst. geol. i geofiz. Sib. otd.
AN SSSR no.21:22-88 '63.   (MIRA 17:11)

L 19445-65   EWT(d)/EED-2/EWP(1)   Po-4/Pq-4/Pg-4/Pk-4   IJP(c)/WSD(a)-5/AS(mp)-2/
AFWD(p)/AFTC(b)/ESD(dp)/ESD(t)   GG/BB
ACCESSION NR: AP4049459   S/0143/64/000/010/0015/0024

AUTHOR: Gusev, Yu. M. (Engineer); Kadomskaya, K. P. (Candidate of technical
sciences); Levinshteyn, M. L. (Candidate of technical sciences, Docent)

TITLE: Analog-computer simulation of corona on wires of a-c power
transmission line   16C

SOURCE: IVUZ. Energetika, no. 10, 1964, 15-24

TOPIC TAGS: analog system, corona, corona discharge, power transmission line

ABSTRACT: As analytical methods of calculating corona on power transmission
lines are very complicated, the use of O. V. Shcherbachev's corona simulator
(Trudy* LPI, no. 1, 1954) combined with an analog computer is suggested. A
single equivalent Γ-network, which reproduces the volt-coulomb characteristic
of corona, is employed. The corona-equivalent capacitance is assumed to be
independent of the line voltage; other parameters of the equivalent circuit are

Card 1/2

L 19445-65
ACCESSION NR: AP4049459

computed on the basis of corona loss in a real line. An example of a 750-kv
single-phase line having a characteristic impedance of 250 ohms (base power,
750 Mw) illustrates the method; corona loss is assumed to be 34¢ kw/km. The
resulting reduction of overvoltage due to corona is 6.3% and 14% for the first and
second maxima of the line voltage wave. An approach to solving 3-phase corona-
loss problems is also outlined; simplified diagrams and corona-parameter
equations are given. An allowance for corona in calculating overvoltages on
superhigh-voltage power transmission lines is considered important. Orig. art.
has: 6 figures, 19 formulas, and 1 table.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. 1. Kalinina
(Leningrad Polytechnic Institute)

SUBMITTED: 10Mar64   ENCL: 00

SUB CODE: EE, DP   NO REF SOV: 007   OTHER: 000

Card 2/2

GUSEV, Yu.M.; KADOMSKAIA, K.P.; LEVINSHTEYN, M.L.; ROSCHENKO, Ye.A.

Mathematical modelling of the characteristics of a discharger used
in protection from internal overvoltages. Trudy LPI no.242:150-158
'65.   (MIRA 18:8)

L 01081-67

ACC NR: AP6019200   (A)   SOURCE CODE: UR/0143/66/000/002/0012/0018

AUTHOR: Gusev, Yu. M. (Engineer); Kadomskaya, K. P. (Candidate of technical sciences); Levinshteyn, M. L. (Candidate of technical sciences, Lecturer)

ORG: Leningrad Polytechnical Institute imeni M. I. Kalinin (Leningradskiy politekhnicheskiy institut)

TITLE: Effectiveness of spark connection for reactors designed for limiting internal surges

SOURCE: IVUZ. Energetika, no. 2, 1966, 12-18

TOPIC TAGS: reactor control, electric power transmission, spark gap, electric discharge, voltage stabilization

ABSTRACT: The number of reactors connected to a line under conditions of internal surge limitation is generally greater than the number necessary for compensating line capacity during low power transmission. For this reason, some of the reactors are connected to the line through spark gaps to limit internal surges in long-range electric power transmission. The authors consider the effectiveness of this type of reactor connection from the standpoint of its effect on maximum overvoltage. Maximum overvoltage in switching commutation is a function of the following random quantities: the emf switching phase Ψ and the breakdown voltage of the reactor spark gap V_{br}. In plot-

UDC: 621.316.435

Card 1/2

L 01081-67

ACC NR: AP6019200   O

ting the distribution functions for the maximum overvoltages it was assumed that the
emf switching phase Ψ is distributed according to a uniform density law in the inter-
val from -90° to +90° inclusive. Curves are given for the resultant distribution func-
tions for surges which result from line connection over a wide range of spark gap
breakdown voltages. A comparison of the mathematical expectations for maximum surges
with pulse switching for conventional and spark connection of reactors shows that re-
actors connected to the line through spark gaps may be treated as straight connections
for practical purposes in power transmissions of higher classes of voltage with rela-
tively low natural frequencies. The operating conditions of dischargers in circuits
containing reactors with spark connection are analyzed. The results of the study show
that operation of the discharger spark gap has practically no effect on the service
life of the discharger even under emergency conditions. The use of commutation dis-
chargers behind the reactor spark gaps requires no special measures for preventing
breakdown of the discharger spark gaps during operation of the reactor spark gap.
Orig. art. has: 4 figures, 3 tables.

SUB CODE:18,20/ SUBM DATE: 10Jul65/ ORIG REF: 004

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Card 2/2

ACC NR: AP6036358   SOURCE CODE: UR/0387/66/000/011/0045/0054

AUTHOR: Karatayev, G. I.; Gusev, Yu. M.; Chernyy, A. V.

ORG: Academy of Sciences, SSSR, Siberian Department, Institute of Geology and Geophysics (Akademiya nauk SSSR, Sibirskoye otdeleniye, institut geologii i geofiziki)

TITLE: Correlation scheme for the construction of geological elements from gravitational and magnetic anomalies

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 11, 1966, 45-54

TOPIC TAGS: gravitation anomaly, magnetic anomaly, geophysics, geologic exploration, correlation statistics, seismography, Mohorovicic discontinuity

ABSTRACT: A model is proposed for the construction of geological elements from gravitational and magnetic anomalies, based on an idea described by one of the authors earlier (Geologiya i geofizika, no. 10, 1964). The model is based on statistical (correlation) laws relating different geological-gravitational-magnetic situations and which are common to them, and the structure of the correlation and the geological interpretation of the gravitational and magnetic anomalies. The simplest features of the relations between the geological elements of the earth's crust and the anomalies in the gravitational magnetic field are outlined, and some ideas from the theory of gravitational-regression annals and automatic image recognition are employed. The mean square error in forecasting the values of geological elements is proposed as a criterion for the efficiency of the method. It is postulated that a standard region

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ACC NR: AP6036358

exists, on which the anomalous fields are determined as well as the geological element sought in the concrete region. The correlation scheme was tested by means of several examples involving both quantitative interpretation (construction of deep-lying seismic boundaries such as the surfaces of the granite and basalt layers and of the Mohorovicic boundary, study of local foundation foldings, and calculation of iso-static anomalies) and qualitative interpretation (determination of the real composi-tion of disturbing masses of gradation, distinction between ore-containing and ore-less magnetic anomalies) of some effects observed in SSSR territory. Orig. art. has: 7 formulas.

SUB CODE: 08, 12/   SUBM DATE: 04Aug65/   ORIG REF: 011

Card 2/2

ACC NR: AP7001910   SOURCE CODE: UR/0387/66/000/012/0028/0036

AUTHORS: Karatayev, G. I.; Chernyy, A. V.; Gusev, Yu. M.

ORG: Institute of Geology and Geophysics, Siberian Division, Academy of Sciences, SSSR (Akademiya nauk SSSR, Sibirskoye otdeleniye, Institut geologii i geofiziki)

TITLE: Constructing linear operators in a correlation scheme for geologic interpretation of gravity and magnetic anomalies

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 12, 1966, 28-36

TOPIC TAGS: magnetic anomaly, earth gravity, data correlation, linear operator, random process, statistic distribution, approximation, mathematic matrix, vector

ABSTRACT: Problems of the joint correlation and regression analysis of geologic and geophysical data are examined. The main idea of a correlation model for geologic interpretation of gravity and magnetic anomalies was presented in an earlier work by G. I. Karatayev, Yu. M. Gusev, and A. V. Chernyy (Korrelyatsionnaya skhema postroyeniya geologicheskikh elementov po gravitatsionnym i magnitnym anomaliyam. Izv. AN SSSR, Fizika Zemli, No. 11, 1966). It is necessary to construct a geologic element λ_0 with an error not exceeding ε_0 in some specific region R^k according to the gravity and magnetic anomalies λ. The values of the geologic element λ_0 and the values of the gravity and magnetic anomalies are considered to be specific cases of

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ACC NR: AP7001910

certain random values:

$$\lambda_0^c = \{\lambda_{01}, \lambda_{02}, \ldots, \lambda_{0n}\},$$
$$\lambda_1^c = \{\lambda_{11}, \lambda_{12}, \ldots, \lambda_{1n}\},$$
$$\lambda_2^c = \{\lambda_{21}, \lambda_{22}, \ldots, \lambda_{2n}\},$$
$$\lambda_m^c = \{\lambda_{m1}, \lambda_{m2}, \ldots, \lambda_{mn}\}.$$

The joint multidimensional discrete distribution of these random values:

$$P(\lambda_0^c, \lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c) = p_{vi}, \quad \sum_{v, i} p_{vi} = 1,$$

The conditional distribution of the random value λ_0^c:

$$P(\lambda_0^c | \lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c) = \frac{P(\lambda_0^c, \lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c)}{P(\lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c)} = \frac{p_{vi}}{p_i},$$

where $p_i = \Sigma p_{vi} > 0.$ A linear multivariate mean square regression is proposed for qualitative interpretation of the anomalies. The theory of automatic pattern recognition is used for the qualitative interpretation. Orig. art. has: 9 formulas.

SUB CODE: 08, 12/ SUBM DATE: 04Jul65/ ORIG REF: 015

Card 2/2

ACC NR: AP6056765   (N)   SOURCE CODE: UR/0020/66/171/001/0170/0172

AUTHORS: Fotiadi, E. E. (Corresponding member AN SSSR); Voronin, Yu. A.; Gusev, Yu. M.

ORG: Institute of Geology and Geophysics, Siberian Division, Academy of Sciences, SSSR (Institut geologii i geofiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Constructing a standard scheme for geological interpretation of geophysical data

SOURCE: AN SSSR. Doklady, v. 171, no. 1, 1966, 170-172

TOPIC TAGS: geology, geophysics, probability, algorithm, set theory

ABSTRACT: A scheme for geological interpretation of geophysical data is described. Let A be a set of objects, and let U and V be systems of criteria (one-place predicates) defined in A. It is assumed that a' and a" $\in$ A are indistinguishable by U if for $\forall u_i \in U$ we have $u_i(a') + u_i(a") \neq 1$. The indistinguishability relation is the equivalence relation and ensures representation of A as $A_1, A_2, \ldots, A_{N(U)}, A_i \cap A_l, l \neq i,$ $\bigcup_{i=1}^{N(U)} = A, A_i \neq 0$. Any other division that can be obtained from $[\bar{A}:U]$ by uniting its classes will be called a derivative and denoted by $\{[A:U]\}$. $\{[A:U]\}$ will diagonalize $\{[A:V]\}$ if

$$-\sum_{j=1}^{N'} p_j' \log p_j' > -\sum_{i=1}^{N} p_i \left(\sum_{j=1}^{N'} p_{ij} \log p_{ij}\right);$$

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ACC NR: AP6036763

where p'_j is the probability of events $a \in A'_j$; p_i is the probability of events $a \in A_i$; and p_{ij} is the probability of events $a \in A'_j$. When this latter condition is fulfilled, then Bayes' criterion can be used to show that a scheme that permits determination of the membership of a in A'_j on the basis of the membership of a in A_i will give a minimum of errors. This method can be used with a description of objects and any volume of experimental data. It is based on minimal a priori assumptions and is easily realized with an electronic computer. Orig. art. has: 3 formulas.

SUB CODE: 08/ SUBM DATE: 19Mar66/ ORIG REF: 004

Card 2/2

GUSEV, Yu.M. (Donetsk)

Characteristics of the clayey soils of the Donets Administrative Region. Osn. fund. i mekh. grun. 6 no.4:5-6 '64.

(MIRA 17:12)

GUSEV, Yu.N.; KONDAKOV, A.M.

Time reserves in using the method of the critical path. Vych. i org. tekh. v stroi. i proek. no.1:9-15 '64.

(MIRA 18:10)

1. Gosudarstvennyy institut tipovogo i eksperimental'nogo proyektirovaniya i tekhnicheskikh issledovaniy Gosstroya SSSR.

GUSEV, Yuriy Nikolayevich; TASUNINA, K.A., red.

[Safety manual for workers assembling technical equipment
in operating plants of the chemical industry] Pamiatka po
tekhnike bezopasnosti dlia rabochikh po montazhu tekhno-
logicheskogo oborudovaniia v deistvuiushchikh tsekhakh
khimicheskikh predpriiatii. Moskva, Stroiizdat, 1961. 30 p.
                                        (MIRA 17:12)

GUSEV, Yuriy Nikolayevich; TABUNINA, M.A., red.

[Safety manual for workers in integrated brigades erecting industrial buildings] Pamiatka po tekhnike bezopasnosti dlia rabochikh kompleksnykh brigad po montazhu promyshlennykh zdanii. Moskva, Stroiizdat, 1964.   57 p.

(MIRA 17:6)

GUSEV, Yuriy ?'.   , SKOTNIKOVA, M.B., red.

> [Practice in using network planning: Report at the seminar
> 'Practice in using computer and organizational techniques
> in construction," conducted by the Institute of Standard
> and Experimental Design and Technological Research on May
> 12-16, 1964] Opyt primeneniia setevogo planirovaniia.
> Doklad na seminare "Opyt primeneniia vychislitel'noi i
> organizatsionnoi tekhniki v stroitel'stve," provedennom
> Institutom Giprotis 12-16 maia 1964 g. Moskva, Gip rotis,
> 1964.   27 p.   (MIRA 18:7)

BURLAKOV, B.S., inzh.; GETMAN, D.Ya., inzh.; GRZHIBOVSKIY, V.V., inzh.;
    GUSEV, Yu.S., inzh.; YEFREMOV, V.Ye., inzh.; ZHURAVSKAYA, G.Ya.,
    inzh.: KAGAN, V.G., inzh.; MALYSHEV, A.I., inzh.; PODREZOV, V.M.,
    inzh.; SAPIRSHTEYN, V.E., inzh.; SHKARIN, Yu.P., inzh.; IGLITSYN,
    I.L., red.; LARIONOV, G.Ye., tekhn.red.

[Adjustment of high-frequency communication and remote control
channels utilizing electric power transmission lines] Naladka
vysokochastotnykh kanalov sviazi i telemekhaniki po provodam linii
elektroperedachi. Moskva, Gos.energ.izd-vo, 1958. 236 p.
(MIRA 13:10)

1. Russia (1923- U.S.S.R.) Ministerstvo elektrostantsii. Tekhni-
cheskoye upravleniye.
    (Remote control)   (Telecommunication)

GUSEV, Yu.Ye, inzh.; MYAGKOV, A. Ye., inzh.; KARYAKIN, Yu.A., inzh.

Methods for designing membrane-type heating filters. Trudy
NIITSement no.12:32-50 '59.   (MIRA 13:5)
                 (Air preheaters)

MYAGKOV, A.Ye., inzh.; GUSEV, Yu.Ye., inzh.; FISHGOYT, L.Ye., inzh.;
TRUTNEV, V.A., inzh.

Intensifying the system of burning keramzit "gravel" and increasing
the economy of operating rotary kilns. Stroi. mat. 9 no.4:17-19
Ap '63.   (MIRA 16:5)

(Keramzit) (Kilns, Rotary)

... ...; VIKIN, L.I., student

... ...matic circular hosiery machine for the manufacture of
... with tricolor jackard pattern. Tekst. prom. 24 no.5:
-40 My '64   (MIRA 18:2)

. ...ovskiy tekstil'nyy institut.

GUSEVA, A.

Herbicides for dodder control. Zashch. rast. ot vred. i bol.
10 no.10:48 '65.   (MIRA 18:12)

1. Starshiy agronom TSentral'noy karantinnoy laboratorii
Ministerstva sel'skogo khozyaystva SSSR.